

# MARKET SURVEY

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## **PROGRAM OVERVIEW**

The Federal Aviation Administration Office of Environment and Energy (AEE) intends to issue a solicitation for Sustainability, Environmental Management, and Operations Research Support.

This market survey is to solicit statements of interest and capabilities from all interested business concerns including SBA certified 8(a) firms and other small business concerns. This market survey also seeks to identify potential vendors for this contract including groups of business teams. Furthermore, this survey will aid the FAA in its determination as to whether adequate competition exists to set-aside part or all of the competition amongst eligible socially and economically disadvantaged businesses that are certified by the Small Business Administration (SBA) for participation in the SBA's 8(a) Program, and other small businesses such as Women Owned businesses and Service Disabled Veteran businesses or whether it is more appropriate to conduct this procurement as a full and open competition. The principal North American Industry Classification System (NAICS) code for this effort is 541330, Environmental Engineering Services.

In order to make this determination the FAA requires the following information from interested vendors.

1. Capability Statement - This document should address your firm's technical capability to provide the services described below. (Limited to 7 pages)
2. Expected programmatic approach (in-house, teaming, subcontracting, etc.) If respondent is an eligible 8(a) certified business or other small business, provide a strategy in terms of percentage of work to be completed by the 8(a) or small business respondent. (Limited to 2 pages.)
3. A list of all teaming partners with a description of each partner's responsibility. (Limited to one page.)
4. Comments concerning the draft SOW's are welcome and optional. The FAA may or may not respond to any comments received.

## **Possible Scope of Services:**

The Contract is seeking entities that can satisfy the requirements of the FAA Office of Environment and Energy (AEE) for the listed needs: Sustainability, Environmental Management, Research, and Additional Support.

## **List of Questions:**

- 1) What expertise can your company provide in the area of sustainability, greening, and energy support, specifically:
  - a) Planning, evaluating, and implementing the FAA-wide Greening Initiative;
  - b) Providing reporting support to AEE by gathering Agency-wide sustainability data on a recurring basis to assess FAA compliance with federal requirements.
  - c) Support completing the Department of Energy (DOE) Federal Energy Management Program Annual Greenhouse Gas and Sustainability Data Report and managing supporting data records;

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- d) Support managing Agency-wide data entry into the DOE EISA 432 Compliance Tracking System;
- e) Providing advice, collaboration and administration support; analysis; and other work to ensure that the FAA complies with current policies, regulations, laws, and Agency goals;
- f) Providing and applying specific knowledge such as guidance and recommendations regarding GHG emissions, energy efficiency, water efficiency, pollution prevention, electronics stewardship, sustainable acquisition, high performance sustainable buildings, and regional and local planning;
- g) Providing program management, development, and reporting support to AEE's environmental and energy programs;
- h) Supporting AEE with the development and review of FAA- and DOT-level policy, guidance, and sustainability and greening plans and strategies;
- i) Planning, designing, and implementing approaches, strategies, programs, and plans focused on FAA compliance with sustainability and greening Executive Orders

For each of the nine above-identified areas of sustainability, greening, and energy support, please provide the following information:

- i. Name of project(s).
  - ii. Contract number(s).
  - iii. Entity(ies) for which the work was performed.
  - iv. Brief description of the project(s).
  - v. Start and end dates of the project(s).
  - vi. List of publications.
  - vii. Name(s), specific organization(s), address(es), title(s), and phone number(s) of principal contact(s) of entity for which the work was performed.
- 2) What expertise can your company provide in the area of FAA Environmental Management System (EMS) Support, specifically:
- a) Providing independent expertise in the planning, implementation, evaluation, and audit of the FAA EMS;
  - b) Adaptation of the FAA EMS to align with evolving priorities, programs, and Agency structure;
  - c) Implementation of the FAA EMS;
  - d) Coordinating with FAA Lines of Business and Staff Offices in the context of our EMS to include meeting facilitation, strategy development, and management of the FAA EMS Steering Group;
  - e) Developing, revising, and supporting the implementation of FAA Environmental Management Programs (EMPs) to utilize a higher-tier approach;
  - f) Researching FAA environmental and energy directives, FAA EMS implementation, ISO-14000 standard development, and federally required performance reporting.
  - g) Implementation of organizational EMSs within the federal government and specifically with the approaches used by FAA Lines of Business to implement and manage their EMSs;

The listed information in i-vii, noted in the second paragraph of Question 1, above, should be addressed for this question and all of the questions that follow.

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- 3) What expertise can your company provide in the area of NextGen Environmental Management System (EMS) Framework and Collaboration Support, specifically:
  - a) Studying, evaluating, designing, developing, and supporting the implementation of:
    - i) NextGen EMS environmental approaches, frameworks, strategies, programs, and plans;
    - ii) Methodologies for stakeholder (e.g. air carrier, airport, manufacturer, other agency, academia, and local community) collaboration with FAA to achieve the Aviation Environmental and Energy Goals and involvement in NextGen EMS;
    - iii) Concepts for NextGen EMS and stakeholder data management, decision support tool development and integration, NextGen environmental aspect evaluation;
    - iv) Communications strategies for focused NextGen EMS outreach within FAA and to external stakeholders (e.g. air carrier, airport, manufacturer, other agency, academia, and local community), plans, materials, and supporting messaging;
  - b) Supporting NextGen plans, goals, and challenges by maintaining the NextGen EMS strategy and framework.
- 4) What expertise can your company provide in the area of Air Traffic Management (ATM)/Operations Research, specifically:
  - a) Providing independent aviation operations technical expertise and input to AEE aviation environmental operations research projects;
  - b) Providing program management support to the AEE aviation environmental operations research portfolio, including project tracking, expert review, and portfolio development
  - c) Developing and maintaining the aviation environmental operations research roadmap;
  - d) Designing and developing software/analytical tools to support aviation environmental operations research activities;
  - e) Supporting ongoing, liaison activities attending meetings, assisting with coordination and logistics, and providing technical review of aviation environmental operations research reports and analyses.
- 5) What expertise can your company provide in the area of Aircraft Technology research such as those being pursued under the Continuous Lower Energy, Emissions, and Noise (CLEEN) program and similar technologies that have potential to reduce noise, emissions, and fuel burn, specifically:
  - a) Assessing environmental benefits of aircraft (airframe and engine) technologies and operational concepts at the aircraft and fleet level;
  - b) Exploring, developing, and demonstrating, via simulation, flight control algorithms and models that have the potential to improve aircraft and fleet environmental performance;
  - c) Enhancing aircraft modeling and assessment capabilities within the aviation environmental tool suite to examine aircraft and fleet-level environmental performance and related tradeoffs and interdependencies;
  - d) Participating in assessment tool verification and validation.

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- 6) What expertise can your company provide in the area of Alternative Jet Fuel research and development, specifically:
  - a) Per ASTM 4054, conducting laboratory, component rig and engine testing of candidate drop-in alternative jet fuels, included fuel blends with Jet A, to support ASTM approval;
  - b) Developing and demonstrating analytical methods that use fuel composition formulations to assess the combustion, handling, storage, and compatibility performance of alternative jet fuels;
  - c) Developing effective measurement systems and conducting gaseous and particulate matter emissions measurements from alternative jet fuel use;
  - d) Conducting analyses to quantify the environmental sustainability, including life cycle GHG emissions and land, air and water impacts, of candidate alternative jet fuel pathways;
  - e) Conducting techno-economic analyses of candidate alternative jet fuel pathways to evaluate their economic cost of fuel production;
  - f) Conducting analyses to support state and regional feedstock-to-finished alternative jet fuel supply chains and deployment efforts;
  - g) Evaluating policy & incentive options that could facilitate alternative jet fuel deployment;
  - h) Developing efficient mechanisms for tracking and reporting nationwide commercial aviation alternative jet fuel production and usage;
  - i) Coordinating activities and managing processes for engaging stakeholders from aviation, energy industry, academia and government to support a broad exchange of information, and advance use and deployment of sustainable alternative jet fuels.
  
- 7) What expertise can your company provide in the area of additional program support, specifically:
  - a) Research and support of FAA's environmental policy development, including National Environmental Policy Act (NEPA), etc.
  - b) Development of FAA environmental research, FAA policy, and FAA tools roadmaps.
  - c) Support FAA/AEE's involvement in the International Civil Aviation Organization (ICAO) and the Committee on Aviation Environmental Protection (CAEP)
  - d) Development of training and educational outreach needed within FAA to support and ensure success of AEE initiatives;
  - e) Development of tools/solutions to support AEE environmental and sustainability reporting and tracking requirements.